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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,089	06/24/2004	Dierk Schroder	41653-201605	5199
26694	7590	11/27/2007		
VENABLE LLP P.O. BOX 34385 WASHINGTON, DC 20043-9998			EXAMINER FELTON, MICHAEL J	
			ART UNIT	PAPER NUMBER
			1791	
			MAIL DATE	DELIVERY MODE
			11/27/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/500,089	<b>Applicant(s)</b> SCHRODER, DIERK	
	<b>Examiner</b> Michael J. Felton	<b>Art Unit</b> 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-8, 11-18 and 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 11-18 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/24/2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/09/2007 has been entered.

### ***Drawings***

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Figures 3 and 5 does not show any parts from figure 1, in particular element 43 as discussed in the specification with respect to figure 5 in paragraph 00044. If any other elements from figure 1 are shown in Figures 3 and 5, they must be labeled as such. The applicant should note that figure 1 currently has no connection to figure 3 and 5, and therefore the relative locations of the measuring devices claimed are not shown in figure 1.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore,

(1) the "second radiation source...located in a receiving trough of the conveying element..." as indicated in claim 2 must be shown or the feature(s) canceled from the claim(s).

(2) the "first radiation receiver comprises a plurality of receiving element arranged in a row" as indicated in claim 15 must be shown or the feature(s) canceled from the claim(s).

No new matter should be entered.

4. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

5. The abstract of the disclosure is objected to because it appears to be concerned with details that are not found within the specification, such as X-ray crystallography. Correction is required. See MPEP § 608.01(b).

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 2, 3, and 7 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the limitation in claim 1 that the second radiation receiver is located within a conveying element, does not reasonably provide enablement for the second radiation source to also be within a conveying element. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims. The specification clearly shows only one embodiment with respect to where the radiation source and receiver are located, and as interpreted by the examiner, the radiation source is not part of a conveying means as shown in Figure 5, or discussed in the specification. Therefore, the information to construct the invention as described in claim 2 is not in the specification and would not be obvious to one of ordinary skill in the art. In particular, it would not be obvious to place both the source and receiver on a conveying surface because the conveying surface typically used in

these applications lack sufficient surface area surrounding the rod shaped article for both a source and a receiver.

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what is being claimed. The preamble states that the apparatus is a measuring device, however, two measuring devices are being claimed with no indication of how they would act as a single measuring device. Claim 6 appears to recognize the fact that these measuring devices are in fact separate parts, and an encompassing system is being claimed.

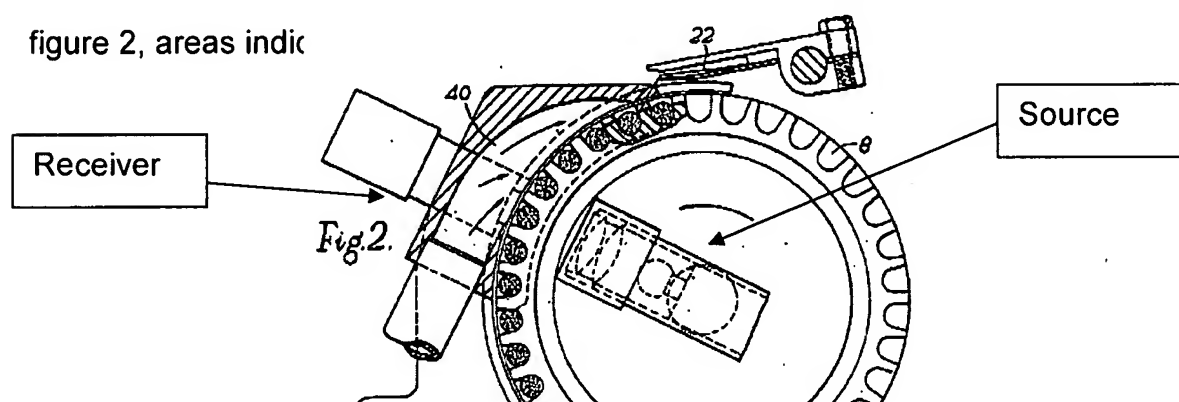
10. Claim 20 recites the limitation "off the tipping paper" in line 2. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

11. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

12. Claims 1, 4, 6, rejected under 35 U.S.C. 103(a) as being unpatentable over Bolt (US 3,040,179) in view of Grollmund et al. (US 5,432,600).

13. Regarding claims 1, 6, 8, 11, 12, and 17 Bolt discloses an inspection apparatus (the applicant's second measuring device) for inspecting rod-like articles, such as cigarettes, that uses a light source contained within a conveying drum that transmits light to a plurality of photo cells on the other side of the rod-like article (col. 2, 8-14, figure 2, areas indic



14. Bolt does not indicate that the receiver could be located within the conveying drum. However, would have been obvious to reverse the location of the radiation source and receiver because it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. In re Einstein, 8 USPQ 167.

15. Bolt does indicate that other inspection devices may be present in a cigarette manufacturing system (col. 4, 35-40) Bolt does not disclose the presence of a system capable of receiving light reflected off a rod-like article. However, Grollmund et al. disclose using two measuring stations to image the outer surface of a cylindrical object that correspond to the first and optionally third measuring device of the instant

application. Each station is composed of a radiation source and a radiation receiver to receive light reflected off the objects being manufactured (col. 6, 25—col. 8, 17).

16. Neither Bolt, nor Grollimund et al. indicate the specific locations for the inspection apparatus as claimed. However, it would have been obvious to one of ordinary skill in the art at the time of invention to locate the inspection apparatus in locations where articles accumulate manufacturing errors. Grollimund et al. indicate that "inspection of this kind may take place at any stage in the production of cigarettes" and Bolt indicates the specific testing of the assembly of cigarette filter elements, as is being claimed in the instant application. The assembly of cigarette filter elements inherently takes place in a cigarette filter tipping machine.

17. Regarding claims 2 and 7, the examiner assumes that the placement of radiation sources disclosed in claims 2 and 7 take the place of radiation receivers disclosed in claim 1. As a result, the arrangement is disclosed by Bolt, in which the radiation source is located in the trough of the conveying element (fluted drum).

18. Regarding claim 3, Bolt discloses the use of a lamp as a light source, but does not disclose whether this is an incandescent, fluorescent, or other type of lamp. However, it would have been obvious to one of ordinary skill in the art at the time of invention to use one of several different types of light sources, including light emitting diodes (LEDs). For instance, Grollimund et al. disclose using fiber optics or a line of LEDs (col. 6, 53-64). LEDs are used in many applications because of their low energy use, lower operating temperatures, and longer lifetimes when compared to other lamps. Using LEDs would reduce the cost of operating (lower energy use and fewer lamp



replacements) and allow smaller equipment footprint (lower heat production) of the imaging systems.

19. Regarding claim 13 and 17, neither Bolt not Grollimund et al. indicate a combining station consisting of "at least in part of drums". However, it is notoriously well known in the art that the manufacture of cigarettes, especially the combination of filter elements with tobacco rods, the cutting of these rods and filters, wrapping the filters and rods together to make filtered cigarettes, and inspection of these rods at any stage of their assembly, takes place of fluted drums such as those shown by Grollimund et al. and Bolt. The applicant should note that whether the combining apparatus is composed of drums or some novel means as yet undescribed appears to lack criticality for the functioning of the present invention and may be outside the scope of a measuring device as that device is claimed in such a way not to encompass the combining station, and only reside in relation to it.

20. Regarding claim 14, Grollimund et al. is capable of radiating light onto the component within the measuring range and receiving the reflected light on a receiver.

21. Regarding claims 15 and 16, Grollimund et al. indicate the use of a charge-coupled device (CCD) to receive the reflected light from the component (col. 8, 12-17).

22. Regarding claim 18, both Bolt and Grollimund et al. disclose comparing the radiation received with a set of values, whether contained in the location of sensors and the operation of a circuit (Bolt, col. 3 and 4), or the use of an image processor (Grollimund et al., col. 8, 43--col. 11, 34) to identify components that do not meet predetermined values and that should be discarded.

23. Regarding claim 20, Grollmund et al. discloses a third measuring device that reflects radiation off an object, measures the radiation, and compares it to a present value, and rejects the object if it does not meet the defined value.

24. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bolt (US 3,040,179) and Grollmund et al. (US 5,432,600), as applied to claim 1 above, in further view of the definition of "photoelectric cell". Bolt indicates the use of photocells, but not the use of photodiodes. However, it would have been obvious to one of ordinary skill in the art at the time of invention to use photodiodes, or any of the other well-known light sensitive sensors, in place of photocells. In addition, the definition of photoelectric cell suggests the use of other photo detectors, including photodiodes.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Felton whose telephone number is 571-272-4805. The examiner can normally be reached on Monday to Friday, 7:30 AM to 4:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P. Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MJF

  
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